

### **REMARKS**

Claims 1, 3-5, 7-12, 15 and 16 are pending, with claims 9-12 withdrawn from consideration. By this amendment, claims 1 and 8 are amended, claims 6, 13 and 14 are canceled, and new claim 15 is added.

No new matter is added to the application by this Amendment. New claim 15 and the new features added to claim 1 find support in canceled claim 6, as originally filed, and within the present specification, as originally filed, at for example, the paragraph bridging pages 8 and 9, the first full paragraph on page 9, the paragraph bridging pages 11 and 12 and Examples 1 and 2. The amendments to claim 8 find support in Fig. 3, as originally filed, and within the present specification, as originally filed, at, for example, the second full paragraph on page 12.

Reconsideration of the application is respectfully requested.

#### **I. Rejection Under 35 USC 103**

##### **A. Terry et al.**

Claims 1, 3-8, 13 and 14 were rejected under 35 USC 103(a) as allegedly being unpatentable over US Patent Publication 2005/0180704 to Terry et al. (hereinafter "Terry"). This rejection is respectfully traversed.

The Patent Office alleges that each and every feature of the foregoing claims would have been obvious to a skilled artisan, at the time of the invention, in view of the teachings of Terry. Applicants respectfully disagree with the allegations by the Patent Office as set forth in the Office Action.

Amended claim 1 incorporates the features of canceled claim 6 and recites "wherein a mechanical bond formation joins, without adhesive, the separate layers A,

B and C to form the backing". The Patent Office alleges that paragraph [0049] of Terry teaches or suggest the features of canceled claim 6 (see page 5 of the present Office Action). Contrary to the Patent Office's allegations, paragraph [0049] of Terry does not teach or suggest the presently claimed mechanical bond formation the joins, without adhesive, the separate layers A, B and C to form the backing. Instead, paragraph [0049] of Terry teaches use of adhesive and specifically sets forth:

[0049] The resulting structure of the tape in cross section will be as shown in **FIG. 3**, although some of the SAP will have migrated into the open layer as in **FIG. 2**. The adhesive may be of many types known in the art, but water based acrylic latices (acrylic latex) and polyvinyl alcohol or blends thereof are preferred.

Moreover, paragraphs [0045]-[0047] of Terry teach use of wet or dry adhesives to adhere the open layer, SAP powder or fiber and the support layer together.

Specifically, paragraphs [0045]-[0047] of Terry set forth:

[0045] **FIG. 5** illustrates constructing a tape with an SAP powder. The open layer **20** is unwound and coated with a wet adhesive **22**, then an SAP powder is sprinkled **24** on the adhesive. The adhesive is activated by heat, light or light pressure and combined with a support layer **26** under light pressure. The sandwiched layers are dried **30** and collected on a roll **32**.

[0046] A dry adhesive may be used and appropriately activated as known in the art. Some preferred examples include: water based acrylic latices (acrylic latex) and polyvinyl alcohol or blends thereof. Other adhesives that may be useful include: thermoplastic polymers such as PE or EVA (hot melt), and, in some applications, polyurethane.

[0047] **FIG. 6** shows use of an SAP fiber **34** in place of the powder **24**. The same processes occur except that the fiber may be flocked onto the wet or dry adhesive.

In view of these teachings of Terry, Applicants submit that Terry fails to teach or suggest a mechanical bond formation that joins, without adhesive, the separate layers A, B and C to form the backing as required by amended claim 1.

Because the features of independent claim 1 are neither taught nor suggested by Terry, Terry cannot anticipate, and would not have rendered obvious to one of ordinary skill in the art, the features specifically defined in claim 1 and its dependent claims.

In view of the foregoing, withdrawal of this rejection is respectfully requested.

**B. Külper and Blackmore et al.**

Claims 1, 3-5, 7, 8, 13 and 14 were rejected under 35 USC 103(a) as allegedly being unpatentable over DE 10039982 to Külper in view of US Patent Publication No. 2004/0082243 to Blackmore et al. (hereinafter "Blackmore"). This rejection is respectfully traversed.

The Patent Office alleges that each and every feature of the foregoing claims would have been obvious to a skilled artisan, at the time of the invention, in view of the teachings of Külper and Blackmore. Applicants respectfully disagree with the allegations by the Patent Office as set forth in the Office Action.

Amended claim 1 incorporates the features of canceled claim 6, which was not rejected under 35 USC 103(a) as allegedly being obvious over Külper in view of Blackmore.

As acknowledged by the Patent Office's failure to reject canceled claim 6 as allegedly being obvious over Külper and Blackmore, these references, taken singly or in combination, do not teach or suggest the features specifically required by amended claim 1.

Accordingly, Külper and Blackmore, taken singly or in combination, fail to teach or suggest a mechanical bond formation that joins, without adhesive, the separate layers A, B and C to form the backing as required by amended claim 1.

Because the features of independent claim 1 are neither taught nor suggested by Külper and Blackmore, taken singly or in combination, these reference would not have rendered the features specifically defined in claim 1 and its dependent claims obvious to one of ordinary skill in the art.

In view of the foregoing, withdrawal of this rejection is respectfully requested.

**C. Külper and Blackmore et al. in view of Gladfelter et al.**

Claim 6 was rejected under 35 USC 103(a) as allegedly being unpatentable over Külper and Blackmore in view of US Patent No. 6,309,721 to Gladfelter et al. (hereinafter "Gladfelter"). This rejection is respectfully traversed.

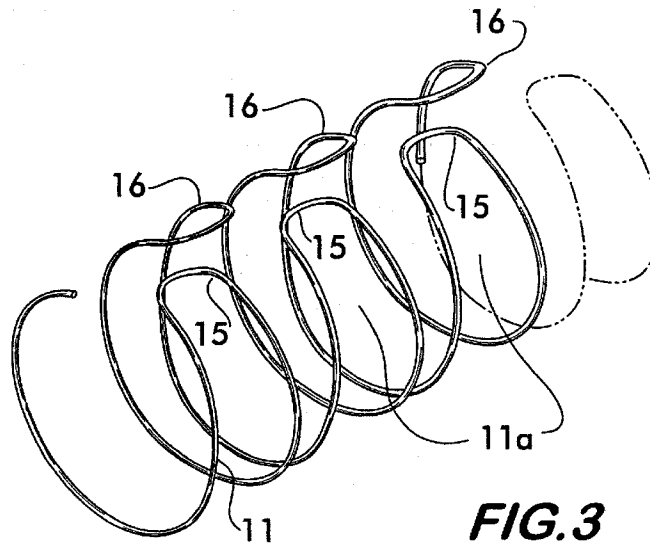
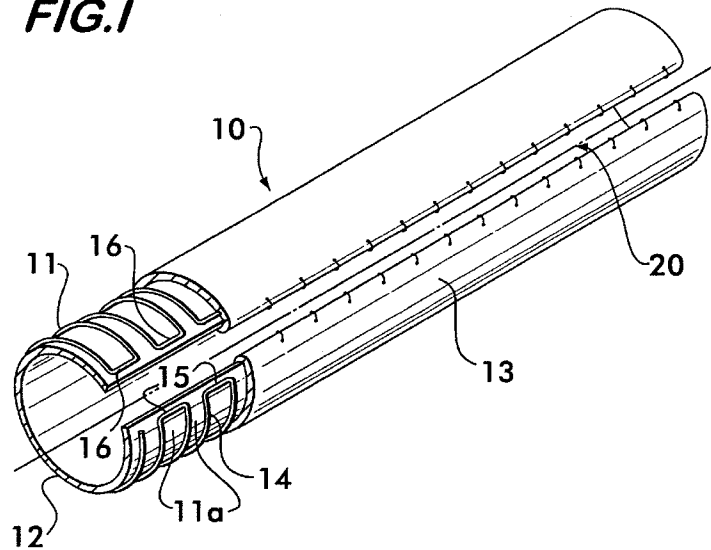
The Patent Office alleges that each and every feature of the foregoing claim would have been obvious to a skilled artisan, at the time of the invention, in view of the teachings of Külper, Blackmore and Gladfelter. Applicants respectfully disagree with the allegations by the Patent Office as set forth in the Office Action.

Amended claim 1 incorporates the features of canceled claim 6; therefore, Applicants take this opportunity to address the rejection of canceled claim 6 in view of amended claim 1.

The Patent Office alleges that col. 3, lines 56-65 of Gladfelter teaches or suggests the features of canceled claim 6, namely, a mechanical bond formation joining, without adhesive, separate layers A, B and C (allegedly Gladfelter's outer layer 13, support layer 11 and inner layer 12) to form an assembly (see page 11 of the Office Action). Contrary to the Patent Office's allegations, Gladfelter's support layer 11 is not a layer per se; instead, Gladfelter's support layer 11 is metallic or non-metallic wire that is bent in serpentine fashion and then bent about a long axis as

that it is generally C-shaped when view along the axis as shown below in FIGS. 1 and 2 (see col. 3, lines 1-17 of Gladfelter).

**FIG.1**



**FIG.3**

In view of FIGS. 1 and 3 of Gladfelter, Applicants submit Gladfelter's support layer 11 (i.e., wire form support layer) does not teach or suggest and can not be compared to the presently claimed layer C as alleged by the Patent Office.

Moreover, col. 3, lines 56-65 of Gladfelter does not teach mechanical bond formation joining separate layers A, B and C (allegedly Gladfelter's outer layer 13, support layer 11 and inner layer 12) as alleged by the Patent Office. This passage cited by the Patent Office sets forth:

With particular reference to FIGS. 1 and 2-2b, several preferred embodiments of sleeves formed according to the invention are illustrated. As shown in FIG. 1, wire form support layer 11 is sandwiched between inner and outer layers 12 and 13. Inner and outer layers 12 and 13 may be comprised of a variety of materials depending upon the conditions to which the sleeve is to be exposed. In one preferred form, an abrasion-resistant sleeve may be constructed using inner and outer layers of polyester film. The film layers may be stitched together, as illustrated, or adhesively secured or heat bonded to form an interlocked, laminated three-layer product having high hoop strength but

Thus, at best, Gladfelter teaches inner and outer film layers 12, 13 may be stitched together; and, as a result, the wire form support layer 11 is sandwiched between the inner and outer layer 12, 13. Nowhere does Gladfelter teach that the inner and/or outer film layers 12, 13 may be joined or stitched to the support layer 11. At best, Gladfelter teaches that the inner and outer film layers 12, 13 are joined or stitched together.

Accordingly, Külper, Blackmore and Gladfelter, taken singly or in combination, fail to teach or suggest a mechanical bond formation that joins the separate layers A, B and C to form the backing as required by amended claim 1.

Because the features of independent claim 1 are neither taught nor suggested by Külper, Blackmore and Gladfelter, taken singly or in combination, these reference would not have rendered the features specifically defined in claim 1 and its dependent claims obvious to one of ordinary skill in the art.

In view of the foregoing, withdrawal of this rejection is respectfully requested.

## **II. New Claims 15 and 16**

Applicants take this opportunity to submit that none of the cited references, taken singly or in combination, teach or suggest the features specifically defined in new claims 15 and 16. Specifically, none of the cited references, taken singly or in combination, teach or suggest a mechanical bond formation that comprises an interloping, a stitching, a needling, a hydroentangling, an over stitching or an intermeshing as recited in new claim 15. Moreover, none of the cited references, taken singly or in combination, teach or suggest a mechanical bond formation that comprises the layer C intermeshed with the layer A and the layer C intermeshed with the layer B as recited in new claim 16.

Because the features of dependent claims 15 and 16 are neither taught nor suggested by the cited references, taken singly or in combination, these references cannot anticipate, and would not have rendered obvious to one of ordinary skill in the art, the features specifically defined in claims 15 and 16.

## **III. Rejoinder**

Applicants submit that upon allowance of claims 1, 3-5, 7, 8, 15 and 16, claims 9-12 should be rejoined with the application and similarly allowed.

Reconsideration and withdrawal of the restriction requirement is respectfully requested.

## **IV. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of

claims 1, 3-5, 7-12 and 15 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Early and favorable action is earnestly solicited.

**CONDITIONAL PETITION FOR EXTENSION OF TIME**

If entry and consideration of the amendments above requires an extension of time, Applicants respectfully request that this be considered a petition therefor. The Commissioner is authorized to charge any fee(s) due in this connection to Deposit Account No. 14-1263.

**ADDITIONAL FEE**

Please charge any insufficiency of fees, or credit any excess, to Deposit Account No. 14-1263.

Respectfully submitted,  
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